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OFFICE OF
ECOSYSTEMS, TRIBAL
AND PUBLIC AFFAIRS

January 8, 2016

Mr. David Hobbie, Chief
Regulatory Division
U.S. Army Corps of Engineers, Alaska District
P.O. Box 6898
JBER, Alaska 99506

Dear Mr. Hobbie:

Thank you for the opportunity to review and comment on the U.S. Army Corps of Engineers Alaska District November, 2015 Preliminary Draft Supplemental Environmental Impact Statement for the Chuitna Coal Project. We have reviewed the PDSEIS in our role as cooperating agency, consistent with our 2011 Memorandum of Understanding. Our overall goal in participating as a cooperating agency is to provide perspective and expertise that will contribute to a high quality environmental impact analysis process. Note that EPA's status as a cooperating agency does not affect our independent responsibilities under Section 309 of the Clean Air Act to review and comment publicly on all Draft EISs.

Our PDSEIS submittal consists of two parts: this cover letter, where we describe some of our main concerns and recommendations, and the Comment Response Matrix (to be sent electronically via email), which includes over 400 detailed and primarily technical comments developed by 17 staff members with expertise in multiple programs at the EPA. We believe that adjustments based on these comments will significantly strengthen the analyses and discussions in the DSEIS.

Primary concerns
We have significant concerns both with the environmental impact of the analyzed alternatives and with inadequacy (or absence) of a number of the analyses in the document. Our primary concerns include the following:

Environmental Impact of the Action

- Potential impacts to the functions and values of the streams and wetlands from the proposed footprint of the mine site
- Proposed removal of salmon bearing stream habitat on site, and long-term loss of fish bearing streams
- Uncertainty with regard to effectiveness of habitat mitigation and reclamation

Adequacy of the Impact Statement

- Inadequate information detailing the quality of aquatic resources on site
- Inadequate assessment of water quality and effects on aquatic life
- Inadequate assessment of metal mobility from mine related materials
- Inadequately supported assumption of minor or negligible contribution to greenhouse gas emissions
- Missing Environmental Justice and Human Health sections

Missing PDSEIS sections
The PDSEIS provided to the cooperating agencies is incomplete. Several critical sections of the document were not available for review, including: the Environmental Justice and Human Health impacts analysis; a finalized proposed action; alternatives analysis screening criteria; and the draft reclamation, mitigation, conservation, and adaptive management plans required or proposed for the project.

In order for us to help identify issues and contribute to a high quality environmental impact analysis process, we believe that the cooperating agencies should have an opportunity to review these missing or incomplete sections prior to release of the public DSEIS.

Given the importance of several of these missing sections, the number of incomplete sections, and the number of serious concerns at this stage, we would urge you to consider giving cooperating agencies an opportunity to review another, more complete version of the SEIS prior to the public DSEIS. If serious concerns and gaps remain in the public DSEIS, EPA's official review would likely result in an adverse rating.

Financial assurance
The PDSEIS does not contain information regarding the amount of bonding that will be required under Alaska Surface Coal Mine Control and Reclamation Act, or other financial assurances that will be required to ensure achievement of the compensatory mitigation and adaptive management proposals. We believe the disclosure of financial assurance and bonding amounts in NEPA documents is critical to inform the public and agency decision-makers of the costs and financial liabilities of long-term cleanup, mitigation, and adaptive management operations.

Given that ASCMCRA requires bonding for reclamation activities, and that the applicant is proposing off-site conservation easements and long-term mitigation and adaptive management measures, the DSEIS should disclose those bonding/financial assurance amounts, the underlying modeling and assumptions (such as the discount rate) used in developing these figures, and the schedule and conditions of release.

Ecosystem processes
We are concerned that the analysis of environmental consequences often lacks the context of conceptual models or a focus on ecosystem processes. For example, the physical loss of 2,340 acres of wetlands from mine-site disturbance is identified as the environmental consequence. The additional consequences of the wetland loss on the downstream hydrology, water quality, wildlife habitat, recreation, and aesthetics are not sufficiently described. Similarly, the physical loss of an extensive and diverse stream network that is miles long is summarized as the loss of 16.5 acres of waters of the U.S. The environmental role of the headwater streams and the ecological consequences of eliminating these streams from the network are not sufficiently discussed.

A focus on functional processes also helps to evaluate the likely effectiveness of proposed mitigation measures. For example, we know that streams reflect watershed processes. Landscape characteristics such as topography, vegetation cover and soil transmissivity influence the delivery of water and sediment from the watershed to the channel. The timing and rate of these deliveries in turn control the physical form of the stream channel and ecologically important processes such as flow upwelling and downwelling.

The reclamation plan uses the existing streams as design models even though the proposed action will alter the watershed processes that control stream form and function. Stream reclamation design should instead be based on the likely characteristics of the post-disturbance landscape.

Our concern is less about the broad conclusions in the PDSEIS, such as "Wetland and system function within the mine site would be removed and would not be anticipated to return to pre-activity condition after closure" (Table 3.12-6). We simply believe the analyses that lead to these conclusions must be documented with much greater detail.

Compliance with 404(b)(1) Guidelines

As the SEIS supports the District's Clean Water Act Section 404 permit action, we recommend that the analysis of impacts be sufficiently detailed to support a finding of compliance or non-compliance with the restrictions on discharge in the 404(b)(1) Guidelines.

The current impact analysis is organized around broad impact categories such as "changes to wetlands and their functions" and "changes to water quality/quantity." Although these examples (and "wetlands," "streams," "lakes and ponds," etc.) may themselves be considered as "umbrella" resources that could be affected by the action alternatives, meaningful analysis of environmental consequences generally requires examining specific elements of the "umbrella" resource.

For example, augmenting streamflow with pumped groundwater may affect various characteristics of the receiving waters such as temperature, pH, dissolved organic carbon, and the concentration and bioavailability of various metals. The extent of changes to specific characteristics would result in specific environmental consequences, such as reduced or increased primary productivity or macroinvertebrate diversity. It would be the specific changes to these specific characteristics that are the environmental consequences that should be disclosed in the SEIS. Simply stating impacts to water quality is not sufficient.

Likewise, a given change to the timing or extent of peak stream flow (even if the quantity remains unchanged over the "water year") may alter sediment transport patterns, overbank flows, the retention of large woody debris, and the onset of ice cover. Each of these changes, in turn, may have significantly different effects on the availability of spawning, rearing, and over-wintering habitat for various fish species, as well as for macroinvertebrates.

Significant degradation

We suggest that the analysis of impacts evaluate the potential for the action alternatives to cause or contribute to significant degradation of the waters of the United States. The specific determinations and considerations required pursuant to 40 C.F.R. § 230.11 should be considered as a minimum level of analysis necessary to support a finding of compliance or non-compliance with the restrictions on discharge.

The required factual determinations could be incorporated into the impact analysis with only minor changes to the current organization. It would be necessary for the identification of specific impacts to reflect those identified in the determinations. In some cases, greater detail will be necessary to determine the nature and degree of effect on specific resources such as components of the stream hydrographs, water quality elements, and individual fish species.

For example, the water circulation, fluctuation, and salinity determinations require consideration of impacts to water, current patterns, circulation (including downstream flows), and normal water fluctuation. These determinations also require consideration of potential changes to water chemistry, salinity, clarity, color, odor, taste, dissolved gas levels, temperature, nutrients and eutrophication. Lastly, these determinations require consideration of potential diversion or obstruction of flow, alterations of bottom contours, or other significant changes in the hydrologic regime.

Thank you again for this opportunity to review and comment. We are committed to continuing our participation with the USACE as a cooperating agency and believe that further opportunities for review and comment and close coordination between our staffs' will make necessary improvements to the DSEIS possible.

Jamey Stoddard, our project manager, will be out of the office until February 8, 2016. If you have questions please contact Erik Peterson at (206) 553-6382, or by email at peterson.erik@epa.gov; or Matthew LaCroix at (907) 271-1480, or by email at lacroix.matthew@epa.gov.

Sincerely,

R. David Allnutt, Director
Office of Ecosystems, Tribal and Public Affairs